Ganaplacide

Cat. No.: HY-108024

CAS No.: 1261113-96-5

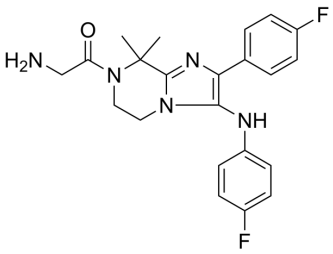
Molecular Formula: $C_{22}H_{23}F_2N_5O$

Molecular Weight: 411.45

Target: Parasite

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Ganaplacide (KAF156) is a first-in-class,orally active imidazolopiperazine antimalarial agent.Ganaplacide is active against a broad range of Plasmodiumspecies, including drug-resistant parasites. Ganaplacide is parasiticidalagainst both asexual and sexual blood stages as well as the liver stages of theparasite[1][2].

In Vitro

Ganaplacide (KAF156) shows blood schizonticidal activity with 50% inhibitory concentrations of 6 to 17.4 nM against P. falciparum drug-sensitive and drug-resistant strains[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Ganaplacide (KAF156) displays cidal activity against mature Plasmodium falciparum gametocytes and thus blocks parasite transmission to Anopheles mosquitoes[1].

Ganaplacide (KAF156) (1-15 mg/kg; p.o.) is fully protective in a causal prophylactic mouse model of malaria[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Mice (causal prophylactic rodent malaria model)[1]
Dosage:	1-15 mg/kg
Administration:	p.o.
Result:	A single oral dose of 10 mg of KAF156/kg administered 2 h before infection was fully protective.

REFERENCES

[1]. Kuhen KL, et al. KAF156 is an antimalarial clinical candidate with potential for use in prophylaxis, treatment, and prevention of disease transmission. Antimicrob Agents Chemother. 2014;58(9):5060-5067.

[2]. Leong FJ, et al. A first-in-human randomized, double-blind, placebo-controlled, single- and multiple-ascending oral dose study of novel Imidazolopiperazine KAF156 to assess its safety, tolerability, and pharmacokinetics in healthy adult volunteers. Antimicrob Agents Chemother. 2014;58(11):6437-6443.

[3]. Leong FJ, et al. A first-in-humanrandomized, double-blind, placebo-controlled, single- and multiple-ascendingoral dose study of novel Imidazolopiperazine KAF156 to assess its safety,tolerability, and pharmacokinetics in healthy adult volunteers. AntimicrobAgents Chemother. 2014;58(11):6437-6443.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA